

## ARTIFACT SHEET

Enter artifact number below. Artifact number is application number + artifact type code (see list below) + sequential letter (A, B, C ...). The first artifact folder for an artifact type receives the letter A, the second B, etc..  
Examples: 59123456PA, 59123456PB, 59123456ZA, 59123456ZB

09826896 ZA

Indicate quantity of a single type of artifact received but not scanned. Create individual artifact folder/box and artifact number for each Artifact Type.

☐

CD(s) containing:

computer program listing

Doc Code: Computer

pages of specification

and/or sequence listing

and/or table

Doc Code: Artifact

content unspecified or combined

Doc Code: Artifact

☐

Artifact Type Code: P

☐

Artifact Type Code: S

☐

Artifact Type Code: U

☐

Stapled Set(s) Color Documents or B/W Photographs

Doc Code: Artifact    Artifact Type Code: C

☐

Microfilm(s)

Doc Code: Artifact    Artifact Type Code: F

☐

Video tape(s)

Doc Code: Artifact    Artifact Type Code: V

☐

Model(s)

Doc Code: Artifact    Artifact Type Code: M

☐

Bound Document(s)

Doc Code: Artifact    Artifact Type Code: B

☐

Confidential Information Disclosure Statement or Other Documents marked Proprietary, Trade Secrets, Subject to Protective Order, Material Submitted under MPEP 724.02, etc.

Doc Code: Artifact    Artifact Type Code: X

☒

Other, description:

U.S. Priority Document

Doc Code: Artifact    Artifact Type Code: Z

The  
United  
States  
of  
America



The Director of the United States  
Patent and Trademark Office

Has received an application for a patent for new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extensions.

Director of the United States Patent and Trademark Office

Attest

469 18942 03A A

903 U.S. PTO  
09/826896



# United States Patent [19]

Iwasaki

[11] Patent Number:

6,145,023

[45] Date of Patent:

\*Nov. 7, 2000

[54] INFORMATION STORAGE AND INFORMATION PROCESSING SYSTEM UTILIZING STATE-DESIGNATING MEMBER PROVIDED ON SUPPORTING CARD SURFACE WHICH PRODUCES WRITE-PERMITTING OR WRITE-INHIBITING SIGNAL

[75] Inventor: Hiroshi Iwasaki, Yokohama, Japan

[73] Assignee: Kabushiki Kaisha Toshiba, Kawasaki, Japan

[\*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] Appl. No.: 08/592,508

[22] Filed: Jan. 26, 1996

[30] Foreign Application Priority Data

Feb. 3, 1995 [JP] Japan ..... 7-017185

[51] Int. Cl.<sup>7</sup> ..... G06F 13/12; G11B 23/03

[52] U.S. Cl. .... 710/13; 710/8; 340/870.16; 361/684; 361/737; 455/41; 360/133

[58] Field of Search ..... 340/870.16; 361/684, 361/737; 235/492; 455/41; 360/133; 710/13, 8

[56] References Cited

## U.S. PATENT DOCUMENTS

4,264,917	4/1981	Ugon	357/74
4,703,420	10/1987	Irwin	364/200
4,837,628	6/1989	Sasaki	358/209
4,860,127	8/1989	Takahashi et al.	360/60
4,860,142	8/1989	DiGiesi	360/133
4,882,702	11/1989	Struger et al.	364/900
4,916,662	4/1990	Mizula	365/52
4,943,464	7/1990	Gioton et al.	428/76
4,980,856	12/1990	Ueno	364/900
5,018,017	5/1991	Sasaki et al.	358/209
5,036,429	7/1991	Kaneda et al.	361/392

5,153,818	10/1992	Mukougawa et al.	361/395
5,172,338	12/1992	Mehrotra et al.	365/185
5,184,282	2/1993	Kaneda et al.	361/395
5,210,671	5/1993	Blackston	360/133
5,226,006	7/1993	Wang et al.	365/189.01
5,272,374	12/1993	Kodai et al.	257/679
5,293,236	3/1994	Adachi et al.	348/231
5,297,029	3/1994	Nakai et al.	365/238.5
5,297,148	3/1994	Harari et al.	371/10.2
5,299,089	3/1994	Lwee	361/684
5,343,319	8/1994	Moore	359/152

(List continued on next page.)

## FOREIGN PATENT DOCUMENTS

0 214 478	3/1987	European Pat. Off.
0 588 517 A1	3/1994	European Pat. Off.
0 708 429 A1	4/1996	European Pat. Off.
43 22 666 A1	1/1994	Germany
64-55691	3/1990	Japan
4-16396	1/1992	Japan
818554	8/1959	United Kingdom
2 208 029	2/1989	United Kingdom

## OTHER PUBLICATIONS

European Patent Office Publication, Patent Abstracts of Japan, Publication No. 63137387, dated Jun. 9, 1988.

Primary Examiner—Meng-Ai T. An  
Assistant Examiner—Rehana Perveen  
Attorney, Agent, or Firm—Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

[57]

## ABSTRACT

In a small and thin memory module for sharing data among electronic devices such as information processing apparatuses, a write prohibit state can be visually recognized. A conductive seal is attached to a predetermined position on a support member, thereby setting the memory module in the write prohibit state. The conductive seal visually indicates the write prohibit state. When the memory module is mounted in a connector section of a card-shaped holder, connector pins are electrically connected to each other via the conductive seal. Thus, a write prohibit mechanism is realized at low cost.

36 Claims, 4 Drawing Sheets

